

Serial No.: 10/541,929
Docket No.: PU030019 (156-759)

Customer No.: 24498
Art Unit: 2621

IN THE CLAIMS:

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This listing of claims will replace all prior versions, and listings, of claims in the application.

1. (Currently Amended) A method for concealing errors in a coded image formed of an array of macroblocks, comprising the steps of:

identifying macroblocks within the array having one of a missing or corrupted pixel values;

for each identified macroblock, deriving at least one intra-prediction coding mode for obtaining coding prediction values ~~for each identified macroblock~~ to define a concealment direction, the at least one intra-prediction coding mode derived in accordance with the coded image;

establishing an interpolation filter for the identified intra-prediction coding mode for estimating concealment values for each identified macroblock along the concealment direction; and

concealing the identified macroblock in accordance with the estimated concealment values.

2. (Original) The method according to claim 1 wherein the image is coded in accordance with the H.264 coding technique and wherein the step of deriving the at least one intra-prediction mode further comprises the step of deriving an Intra_4x4 prediction mode prescribed by the H.264 coding technique.

3. (Original) The method according to claim 2 wherein the step of establishing the interpolation filter further comprises selecting the interpolation filter prescribed by the H.264 coding technique for the derived Intra_4x4 prediction mode.

4. (Original) The method according to claim 2 wherein the step of establishing the interpolation filter further comprises the step of deriving a interpolation filter mirroring the interpolation filter prescribed by the H.264 coding technique for the derived Intra-

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_4x4 prediction mode.

5. (Original) The method according to claim 2 wherein the derived Intra_4x4 prediction mode comprises Mode 0 (vertical) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 0.

6. (Original) The method according to claim 4 wherein the derived Intra_4x4 prediction mode comprises Mode 1 (horizontal) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 1.

7. (Original) The method according to claim 2 wherein the derived Intra_4x4 prediction mode comprises Mode 2 (DC) and wherein the step of establishing the interpolation filter further comprises the step independently weighting a sum of pixel values from a neighboring column and a neighboring row in a vertical direction and a horizontal direction, respectively.

8. (Original) The method according to claim 4 wherein the derived Intra_4x4 prediction mode comprises Mode 3 (Diagonal down left) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 3.

9. (Original) The method according to claim 4 wherein the derived Intra_4x4 prediction mode comprises Mode 7 (vertical left) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 7.

10. (Original) The method according to claim 4 wherein the derived Intra_4x4 prediction mode comprises Mode 47 (diagonal down right) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding

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technique for Mode 4.

11. (Original) The method according to claim 4 wherein the derived Intra_4x4 prediction mode comprises Mode 5 (Vertical right) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 5.

12. (Original) The method according to claim 4 wherein the derived Intra_4x4 prediction mode comprises Mode 6 (horizontal down) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 6.

13. (Original) The method according to claim 4 wherein the derived Intra_4x4 prediction mode comprises Mode 8 (horizontal up) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 8.

14. (Currently Amended) A method for concealing errors in a coded image comprised of an array of macroblocks, the image coded in accordance with the H.264 coding technique, the method, comprising the steps of:

identifying macroblocks within the array having one of a missing or corrupted pixel values;

for each identified macroblock, deriving at least one Intra_4x4 prediction coding mode for obtaining coding prediction values in accordance with the H.264 coding technique for each identified macroblock to define a concealment direction;

establishing an interpolation filter for the identified intra-prediction coding mode for estimating concealment values for each identified macroblock along the concealment direction; and

concealing the identified macroblock in accordance with the estimated concealment values.

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15. (Original) The method according to claim 14 wherein the step of establishing the interpolation filter further comprises selecting the interpolation filter prescribed by the H.264 coding technique for the derived Intra_4x4 prediction mode.

16. (Original) The method according to claim 14 wherein the step of establishing the interpolation filter further comprises the step of deriving a interpolation filter mirroring the interpolation filter prescribed by the H.264 coding technique for the derived Intra_4x4 prediction mode.

17. (Original) The method according to claim 14 wherein the derived Intra_4x4 prediction mode comprises Mode 1 (horizontal) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 1.

18. (Original) The method according to claim 14 wherein the derived Intra_4x4 prediction mode comprises Mode 3 (Diagonal down left) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 3.

19. (Original) The method according to claim 14 wherein the derived Intra_4x4 prediction mode comprises Mode 7 (vertical left) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 7.

20. (Original) The method according to claim 14 wherein the derived Intra_4x4 prediction mode comprises Mode 4 (Diagonal down right) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 4

21. (Original) The method according to claim 14 wherein the derived Intra_4x4 prediction mode comprises Mode 5 (Vertical right) and wherein the derived interpolation

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filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 5.

22. (Original) The method according to claim 14 wherein the derived Intra_4x4 prediction mode comprises Mode 6 (horizontal down) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 6.

23. (Original) The method according to claim 14 wherein the derived Intra_4x4 prediction mode comprises Mode 8 (horizontal up) and wherein the derived interpolation filter comprises the interpolation filter prescribed by the H.264 coding technique for Mode 8.